

Remarks

Claims 2-49 remain pending in this application after entry of this paper. Claim 1 has been canceled. Claim 49 has been added. Claims 2-48 have been amended to more particularly point out the invention. The invention is believed to be patentable.

Original claim 1 was provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claim 1 of co-pending application no. 10/714,122. Applicants note the provisional rejection, and will consider filing an appropriate terminal disclaimer in the event that the conflicting claim is patented.

The Examiner rejected original claims 1-48 under 35 U.S.C. § 101. Claims 2-49, as presented by this paper, are believed to be statutory subject matter and be patentable under 35 U.S.C. § 101. Each independent claim now recites instructions for indexing the image file by creating an index file containing indexing data for the captured document images, among other limitations.

Original claims 1-36 and 38-48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al. (U.S. Pub. No. 2004/0015566) in view of Lal (U.S. Patent No. 6,684,204).

The invention relates to document processing systems, and to storing and retrieving individual images in a document processing system. As explained in the Background Art section of the application, an existing document processor, in order to meet performance demands, stores many images in each image file. Once the images are captured, an indexing scheme must be used to retrieve single images out of each file of images. The indexing scheme generally used is a file format consisting of an array of fixed structures. Specifically, the IDX format index file is made up of a header and a number of index records. The fixed structures are difficult to manipulate in some programming languages, and in addition, the fixed nature

of the structures makes it difficult to extend the content of the structures while retaining compatibility with existing applications. Specification, pp. 3-8.

The invention involves a document processing system having an improved image-indexing scheme. For example, claim 49 recites a document processing system having at least one computer running system software that interfaces with transport hardware to provide document control and capture document images and document data in various formats. An image file stores a plurality of captured document images for subsequent retrieval on an individual basis. The system includes a computer readable storage medium storing the system software.

The system software on the medium further comprises instructions for indexing the image file by creating an index file. The index file contains indexing data for the captured document images.

The medium further comprises a document-type definition file including a plurality of elements. The index file is in the form of a self-describing document in accordance with the document-type definition file. The self-describing document includes indexing data for the captured document images to allow subsequent retrieval of the captured document images on an individual basis.

The remaining independent claim, claim 26, recites similar subject matter. Claim 26 recites that the document type definition file has a plurality of element declarations and attribute declarations. The plurality of element declarations includes first elements related to selected parameters of the document processing system and second elements related to selected parameters of each at least one document that is processed. The attribute declarations include attributes that describe detailed information about selected ones of the elements.

The cited prior art fails to describe or suggest the claimed invention. Anderson describes an electronic item management and archival system. Anderson does describe

document images. Anderson fails to describe or suggest the claimed feature of an index file in the form of a self-describing document in accordance with the document-type definition file including the plurality of elements, wherein the self-describing document includes indexing data for the captured document images to allow subsequent retrieval of the captured document images on an individual basis.

The Examiner acknowledges Anderson's failure to disclose the specified index file. The Examiner relies on Lal as a secondary reference. Applicants believe that Lal fails to overcome the shortcomings of Anderson, and that Anderson and Lal still fail to suggest the claimed invention.

Lal describes conducting a search on a network which includes documents having a plurality of tags. As described by Lal, and as illustrated in Figure 7, Lal is about indexing XML documents. More specifically, Lal is about indexing a collection of XML documents 110 by creating hash-table index 115 and tree index 116. That is, Lal is teaching the creation of indexes for an XML document collection. There does not appear to be any suggestion of an index file in the form of a self-describing document in accordance with the document-type definition file as claimed. Lal illustrates a hash-table index in Figure 8, and illustrates a tree index in Figure 9. These indexes in Lal are described at column 5, lines 7-35.

Applicants point out that the claimed invention relates to indexing captured document images where the index file is in the form of a self-describing document. The Examiner acknowledges the shortcomings of Anderson. Lal is about indexing an XML document collection, but does not describe an index file in the form of a self-describing document as claimed.


For the reasons given above, it is believed that the relied upon prior art does not teach each claimed feature. Further, with regard to motivation, the Examiner states that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Lal to the system of Anderson in order to effectively search

documents in XML.” This statement of motivation does not appear to be sufficient to suggest combining teachings of the references to achieve the claimed invention. There is no teaching, suggestion, or motivation to combine the references to achieve the claimed invention. After all, neither reference describes the claimed index file in the form of a self-describing document in accordance with the document-type definition file. The Examiner acknowledges this shortcoming in Anderson. Lal provides hash-table and tree indexes for a document collection, but does not describe an index in the form of a self-describing document as claimed. Further, although Lal does describe searching XML documents, it is not clear that there would be any motivation to combine any of the Lal teachings into the system of Anderson. After all, the claimed invention is about indexing captured image data using an XML index file in the form of a self-describing document, and is not about effectively searching XML documents.

For the reasons given above, claims 2-49 are believed to be in condition for allowance and such action is respectfully requested.

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Respectfully submitted,
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